

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **24383**
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker				Port of Survey	
having				Date of Survey	
(Type of Superstructures.)				Name of Surveyor	
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	
CRISTOBEL COLON					
Moulded Dimensions: Length	Breadth	Depth	Particulars of Classification		
Moulded displacement at moulded draught = 85 per cent. of moulded depth			tons		
Coefficient of fineness for use with Tables			703		

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth	(a) Where D is greater than Table depth (D - Table depth) R = + 11.61	Moulded Breadth (B)
Stringer plate	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50}$ =
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) = 35.82		Difference
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = + 1.12$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed					
„ overhang aft					
„ overhang forward					
F'cle enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total					

Standard Height of Superstructure
„ „ R.Q.D.
Deduction for complete superstructure
Percentage covered $\frac{S}{L} =$
„ „ $\frac{S_1}{L} =$
„ „ $\frac{E}{L} =$
Percentage from Table, Line A.
(corrected for absence of forecastle (if required))
Percentage from Table, Line B.
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = **- 32.36**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{4}L$ from A.P.		4					4		
$\frac{2}{8}L$ „		2					2		
Amidships		4					4		
$\frac{2}{8}L$ from F.P.		2					2		
$\frac{1}{4}L$ „		4					4		
F.P.		1					1		
Total									

Mean actual sheer aft =
Mean standard sheer aft =
Mean actual sheer forward =
Mean standard sheer forward =
Length of enclosed superstructure forward of amidships =
„ „ aft of „ =
Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = **+ 1.92**$
If limited on account of midship superstructure.
If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40T}$ inches =	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient Depth Correction Deduction for superstructures Sheer correction Round of Beam correction Correction for Thickness of Deck amidships Other corrections, scantlings, <i>as above</i> Swedish																		
Ft. Depth to Freeboard Deck = Summer freeboard = Moulded draught (d) = Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = Addition for Winter North Atlantic Freeboard (if required) =		<table><tr><td>+</td><td>-</td></tr><tr><td>11.61</td><td>-</td></tr><tr><td>-</td><td>32.36</td></tr><tr><td>1.92</td><td>-</td></tr><tr><td>.12</td><td>-</td></tr><tr><td>2.64</td><td>-</td></tr><tr><td>44.85</td><td>-</td></tr><tr><td>61.14</td><td>32.36</td></tr><tr><td colspan="2">+ 28.78</td></tr></table> Summer Freeboard = 126.50	+	-	11.61	-	-	32.36	1.92	-	.12	-	2.64	-	44.85	-	61.14	32.36	+ 28.78	
+	-																			
11.61	-																			
-	32.36																			
1.92	-																			
.12	-																			
2.64	-																			
44.85	-																			
61.14	32.36																			
+ 28.78																				

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line **31** Wood, Steel, Deck:— **126.50**

Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard
Fresh Water Line „ „	Fresh Water „ „
Tropical Line „ „	Tropical „ „
Winter Line below „ „	Winter „ „
Winter North Atlantic Line „ „	Winter North Atlantic „ „

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Description of Hatchway											
Dimensions of Hatchway											
COAMINGS	Height above Deck										
	Thickness										
	Sides										
	Ends										
HATCH BEAMS	Stiffeners										
	Brackets, Stays										
	Number										
	Spacing										
FORE AND AFTERS	Scantling and Sketch										
	Bearing Surface										
	Number										
	Spacing										
HATCH COVERS	Unsupported Lengths										
	Scantling* and Sketch										
	Bearing Surface										
	Material										
Thickness											
How fitted											
Bearing Surface											
Spacing of Cleats											
Number of Tarpaulins											

*Are wood fore and afters steel shod at all bearing surfaces?
 Are battens and wedges efficient and in good condition?
 Are tarpaulins in good condition and in accordance with rule requirements?
 Are lashings provided in accordance with rule requirements?

Particulars of fiddle, funnel and ventilator coamings:—

Particulars of Flush Bunker Scuttles:—

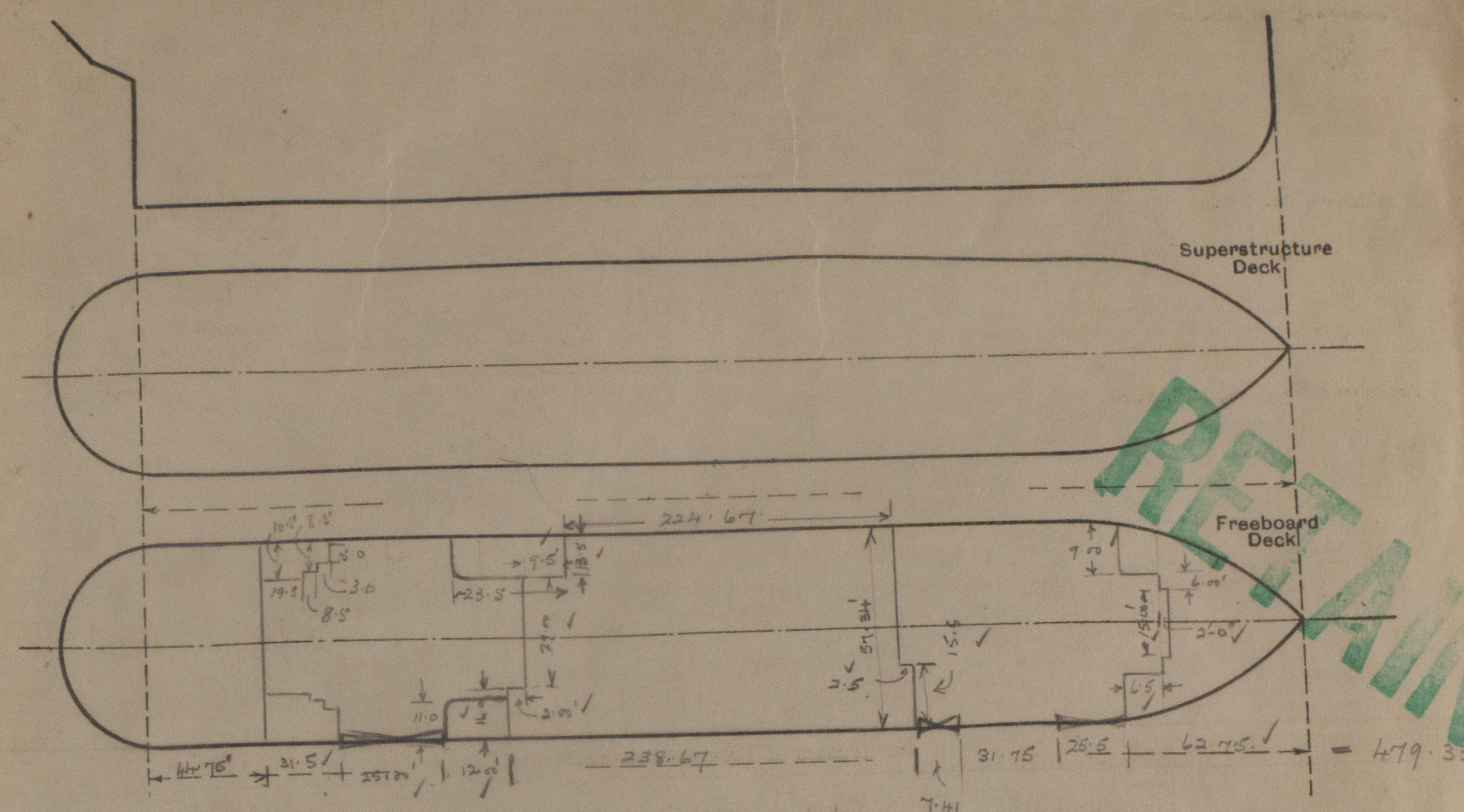
Particulars of Companionways:—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

Particulars of Gangway Cargo and Coaling Ports:—

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

Bridge
 O.H. Ford. $\frac{2.5 \times 15.5}{57.34} = .6801$ $\frac{2.50}{1.821}$ overlay Ford.

O.H. Affc.
 $\frac{16 \times 21}{45 \times 9.5} = \frac{33.6}{427.50} = 7.851$
 $\frac{459.50}{58.5} = 7.851$
 $\frac{11.50}{7.851} = 1.465$
 $\frac{23.50}{15.53} = 1.513$
 $\frac{15.65}{1.513} = 10.34$
 overlay affc.

Bridge
 $\frac{224.67}{7.851} = 28.61$
 $\frac{224.67}{15.53} = 14.47$
 $\frac{224.67}{240.88} = .933$
 mean covered.
 enclosed

Forecastle
 Reuss $\frac{27 \times 6.5}{15 \times 2.0} = \frac{175.50}{30.00} = 5.85$
 $\frac{62.75}{4.557} = 13.77$
 $\frac{58.20}{14.00} = 4.16$

$\frac{22.5 \times 13.5}{12.00 \times 11.0} = \frac{303.75}{132.00} = 2.297$
 $\frac{44.92}{58.5} = .768$

$\frac{8 \times 3}{8.5 \times 8.5} = \frac{24}{72.25} = .332$
 $\frac{19.5 \times 10.5}{292.0} = .067$
 $\frac{26.5}{11.01} = 2.406$

Roof
 $\frac{31.5}{11.01} = 2.86$
 $\frac{44.45}{11.01} = 4.03$
 $\frac{55.46}{10.24} = 5.41$
 $\frac{66.00}{66.00} = 1.00$

Builder's name and yard number

Names of sister ships

Owners

Fee £ : : Received by me

Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles :—

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well						
Forward Well						
State position of each freeing port } After Well :— (F. and A. position and height above deck edge) } Forward Well :— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks								
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...								
Particulars of Closing Appliances (state if capable of being manipulated from both sides).								
Poop Bulkhead								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks								
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...								



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